

Claims

Claim 1 (Previously presented): In combination with a cabinet and a door, a hinge for pivotally connecting the door to the cabinet, comprising:
a door leaf mounted and fully enclosed within the door;
a cabinet leaf mounted on an exterior surface of the cabinet; and
an intermediate leaf interconnecting the door and cabinet leaves so as to allow the door to pivot between open and closed positions.

Claim 2 (Original): The hinge of claim 1 further comprising a first pin connecting the door leaf and intermediate leaf together and a second pin connecting the cabinet leaf and intermediate leaf together.

Claim 3 (Previously presented): The hinge of claim 2 wherein the first pin is fully enclosed within the door.

Claim 4 (Original): The hinge of claim 2 wherein the intermediate leaf pivots about the second pin and then the door leaf pivots about the first pin when opening the door.

Claim 5 (Original): The hinge of claim 2 wherein the cabinet leaf is fixed relative to the second pin and the intermediate leaf pivots about the second pin.

Claim 6 (Original): The hinge of claim 2 wherein the door leaf pivots about the first pin and then the intermediate leaf pivots about the second pin when closing the door.

Claim 7 (Original): The hinge of claim 2 wherein the door leaf and intermediate leaf pivot about the first and second pins to allow the door to swing approximately 270° relative to the cabinet.

Claim 8 (Original): The hinge of claim 2 wherein at least one of the cabinet leaf and intermediate leaf includes a cam ramp to delay full pivotal movement about the second pin until pivotal movement about the first pin is complete.

Claim 9 (Original): The hinge of claim 1 wherein the door leaf and the intermediate leaf pivots sequentially about the first and second pins.

Claim 10 (Original): The hinge of claim 9 wherein the sequential pivot operation of the first and second pins is reversed between the opening and closing operations.

Claim 11 (Original): The hinge of claim 1 wherein the intermediate leaf includes a first end within the door and a second end outside the door.

Claim 12 (Original): The hinge of claim 9 wherein the intermediate leaf has a curved portion extending between the first and second ends and extending through an opening in the door.

Claim 13 (Previously presented): A cabinet comprising:
a plurality of walls defining a door opening;
a door mounted on one of the walls so as to move between open and closed positions relative to the door opening; and
a pair of hinges for pivotally mounting the door to the one wall, each hinge including first and second pivot pins, with at least one of the pins being substantially hidden within the door.

Claim 14 (Original): The cabinet of claim 13 further comprising a rod interconnecting the pair of hinges.

Claim 15 (Original): The cabinet of claim 13 wherein each hinge includes a door leaf, a cabinet leaf, and an intermediate leaf, with the door leaf and intermediate leaf connected by the first pivot pin, and the cabinet leaf and intermediate leaf connected by the second pivot pin.

Claim 16 (Previously presented): The cabinet of claim 15 wherein the door leaf is mounted and fully enclosed within the door, the cabinet leaf is mounted to the one cabinet wall, and the intermediate leaf interconnects the door and cabinet leaves.

Claim 17 (Original): The cabinet of claim 16 wherein the intermediate leaf has a first end inside the door and a second end outside the door.

Claim 18 (Original): The cabinet of claim 15 wherein the first pin is within the door.

Claim 19 (Original): The cabinet of claim 15 wherein the door leaf and cabinet leaf are fixed with respect to the door and the cabinet, the door leaf pivots about the first pin, and the intermediate leaf pivots about the second pin.

Claim 20 (Original): The cabinet of claim 18 wherein the pivotal movement occurs sequentially about the first and second pins.

Claim 21 (Original): The cabinet of claim 15 wherein the intermediate leaf has a curved portion extending between the door leaf and cabinet leaf.

Claim 22 (Original): The cabinet of claim 15 wherein the intermediate leaf has a curved portion extending through an opening in the door.

Claim 23 (Previously presented): The cabinet of claim 21 wherein the intermediate leaf has a curved portion that is substantially a radius centered at the first pivot pin.

Claim 24 (Original): The cabinet of claim 13 wherein the hinges pivot about the pins to allow the door to swing approximately 270° relative to the one wall.

Claim 25 (Previously presented): In combination with a cabinet and door, a hinge for pivotally connecting the door to the cabinet, comprising:

a door leaf mounted and fully enclosed within the door;
a cabinet leaf mounted on the cabinet;
an intermediate leaf interconnecting the door and cabinet leaves; and
means for controlling the order of operation of the leaves.

Claim 26 (Original): The hinge of claim 25 further comprising a first pin to connect the door leaf and intermediate leaf and a second pin to connect the cabinet leaf and intermediate leaf.

Claim 27 (Original): The hinge of claim 26 wherein the means provides greater torsional resistance between the cabinet leaf and intermediate leaf than between the door leaf and intermediate leaf when closing the door.

Claim 28 (Original): The hinge of claim 26 wherein the means includes a cam ramp on at least one of the cabinets leaf and intermediate leaf.

Claim 29 (Previously presented): In combination with a cabinet and door, a hinge for pivotally connecting the door to the cabinet, comprising:
a door leaf mounted within the door;
a cabinet leaf mounted on the cabinet;
an intermediate leaf interconnecting the door leaf and cabinet leaf; and
torsional resistance between the cabinet leaf and the intermediate leaf being greater than torsional resistance between the door leaf and the intermediate leaf.

Claim 30 (Original): The hinge of claim 29 further comprising a first pin to connect the door leaf and intermediate leaf and a second pin to connect the cabinet leaf and intermediate leaf.

Claim 31 (Original): The hinge of claim 29 further comprising a cam ramp on at least one of the cabinet leaf and intermediate leaf to increase the torsional resistance therebetween.

Claim 32 (Previously presented): The hinge of claim 11 wherein the intermediate leaf is substantially hidden within the door when the door is in the closed position.